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U.S.S.N. 10/804,787

Filed: March 19, 2004

AMENDMENT AND RESPONSE TO OFFICE ACTION

Amendment

In the Claims

Claim 1. (Canceled).

2. (Previously presented) The device or implant of claim 48, wherein the non-tissue-binding block has a molecular weight in excess of 5,000 daltons.

3. (Previously presented) The device or implant of claim 48, where the non-tissue-binding block has a molecular weight in excess of 50,000 daltons.

4. (Previously presented) The device or implant of claim 48, wherein the non-tissue-binding block is selected from the group consisting of polyethylene glycol, mixed polyalkylene oxides having a solubility of at least one gram/liter in aqueous solutions, neutral water-soluble polysaccharides, polyvinyl alcohol, poly-N-vinyl pyrrolidone, non-cationic poly(meth)acrylates and combinations thereof.

5. (Previously presented) The device or implant of claim 4, wherein the non-tissue-binding block comprises polyethylene glycol.

6. (Previously presented) The device or implant of claim 48, wherein the polycationic block is selected from the group consisting of natural and unnatural polyamino acids having net positive charge at neutral pH, positively charged polysaccharides, and positively charged synthetic polymers.

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7. (Previously presented) The device or implant of claim 48, wherein the polycationic block comprises monomeric units selected from the group consisting of lysine, histidine, arginine and ornithine.

8. (Previously presented) The device or implant of claim 6, wherein the positively charged polysaccharide is selected from the group consisting of chitosan, partially deacetylated chitin, and amine-containing derivatives of neutral polysaccharides.

9. (Previously presented) The device or implant of claim 6 wherein the positively charged synthetic polymer is selected from the group consisting of polyethyleneimine, polyamino(meth)acrylate, polyaminostyrene, polyaminoethylene, poly(aminoethyl)ethylene, polyaminoethylstyrene, and N-alkyl derivatives thereof.

Claim 10. (Canceled).

11. (Previously presented) The device or implant of claim 1-48, further comprising a bioactive agent.

12. (Previously presented) The device or implant of claim 11 wherein the bioactive agent is chemically coupled to the polymer.

Claims 13 - 40. (Canceled).

41. (Currently amended) A method for coating the surface of a medical device or implant formed of a material with a net anionic surface, selected from the group consisting of metal and glass, comprising adsorbing to the surface a block copolymer,

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wherein: the copolymer is in a form selected from the group consisting of brush copolymers, dendritic copolymers and linear copolymers.

includes wherein the copolymer comprises a polycationic block comprising either a linear polycationic block or a dendritic polycationic block with a molecular weight sufficient to provide at least 8 cationic charges and at least one non-tissue binding block,

wherein when the copolymer is in the form of a brush copolymer, the polycationic block is not polyethylene imine,

wherein the block copolymer is applied to the surface to form a coating by ionic binding of the cationic charges to the surface, and

wherein the non-tissue binding block prevents or minimizes the attachment of proteins or cells to the surface.

42. (Original) The method of claim 41, wherein the surface is a metal surface.

Claims 43 - 47. (Canceled).

48. (Currently amended) A medical device or implant formed of a material with a net anionic surface, wherein the material is selected from the group consisting of metal or glass having a surface coating adsorbed thereto comprising

a block copolymer in a form selected from the group consisting of brush copolymers, dendritic copolymers and linear copolymers.

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comprising wherein the copolymer comprises a polycationic block comprising either a linear polycationic block or a dendritic polycationic block with a molecular weight sufficient to provide at least eight cationic charges, and at least one non-tissue binding block,

wherein when the copolymer is in the form of a brush copolymer, the polycationic block is not polyethylene imine.

wherein the block copolymer is applied to the surface to form a coating by ionic binding of the cationic charges to the surface, and

wherein the non-tissue binding block prevents or minimizes the attachment of proteins or cells to the surface.

49. (Currently amended) The implant or device of claim 48, wherein the surface is a glass surface.

50. (Currently amended) The implant or device of claim 48, wherein the surface is a metal surface.

51. (Previously presented) The implant or device of claim 48, wherein the surface is net anionic at physiological pH.

52. (Currently amended) The method of claim 41, wherein the surface is a glass surface.

53. (Previously presented) The method of claim 41, wherein the surface is net anionic at physiological pH.

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54. (Previously presented) The method of claim 41, wherein the copolymer is applied to the surface by placing the medical device or implant in a solution containing the copolymer.

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